

التفوق

In Math

الصف الثاني الابتدائي

الفصل الدراسي الأول

prepared by

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للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائة 50 جنيهاً

collecting & Representing Data

Graphs:

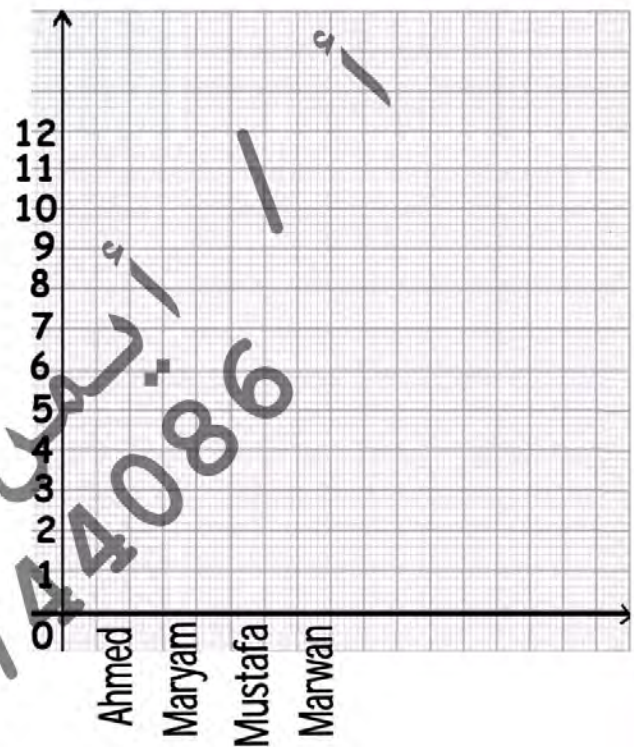
They are tools that help us to compare parts of data or information.

Bar graph: It uses bars to show the collected data.

Example:

This table shows the ages of Ahmed, Maryam, Mustafa and Marwan.
Draw a bar graph to represent these data.

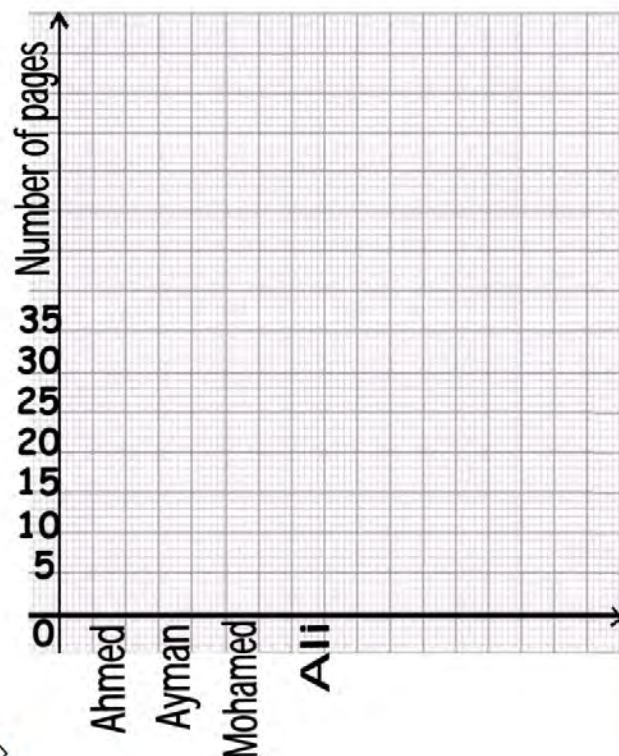
Name	Age
Ahmed	8
Maryam	11
Mustafa	6
Marwan	12



Example:

Ahmed, Ayman, Mohamed and Ali entered a library. The table shows the number of pages read by each of them.
Draw a bar graph to represent these data.

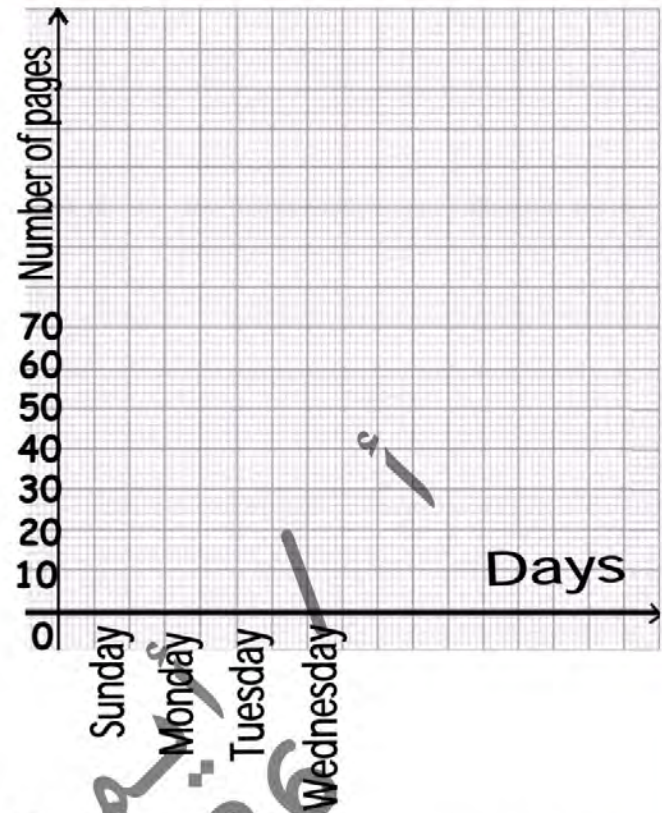
Name	Age
Ahmed	35
Ayman	15
Mohamed	25
Ali	20



Example:

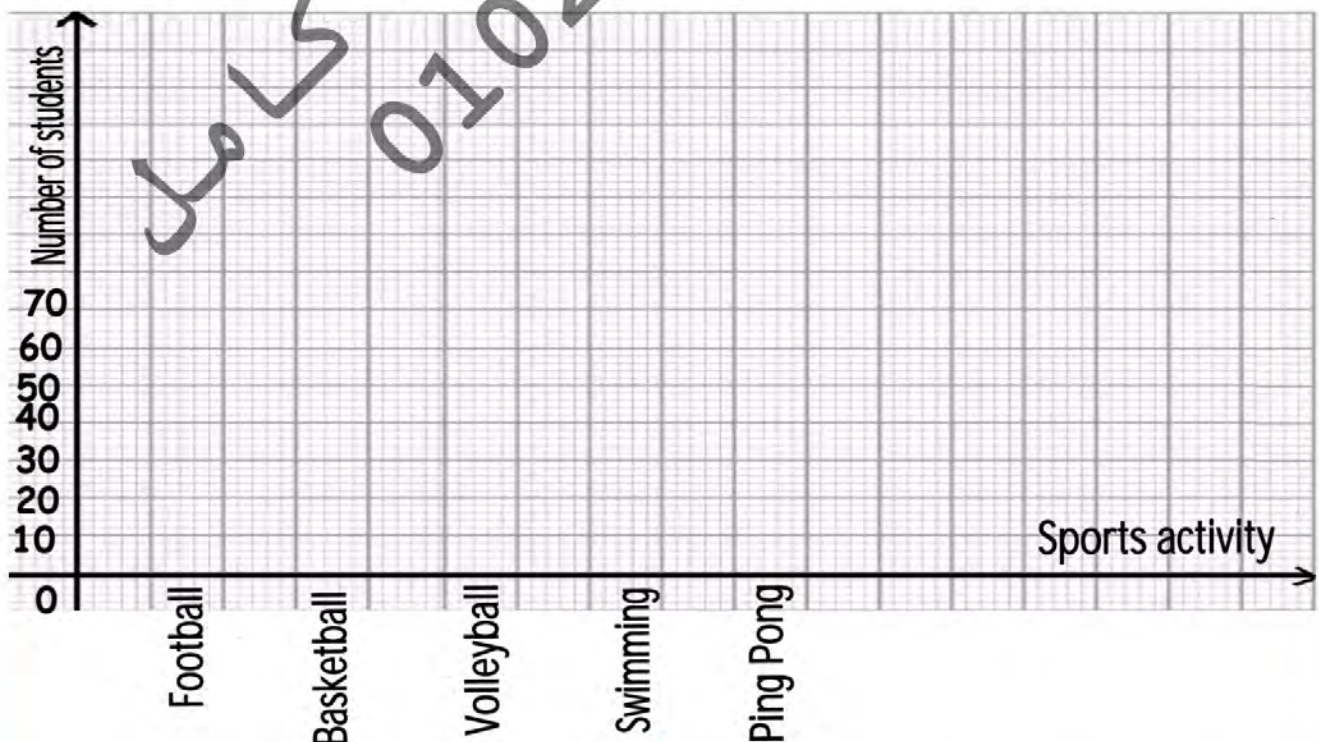
Ayman studied this week a number of pages in math. The table shows the number of pages read everyday. Draw a bar graph to represent these data.

Day	No. of pages
Sunday	20
Monday	40
Tuesday	60
Wednesday	70

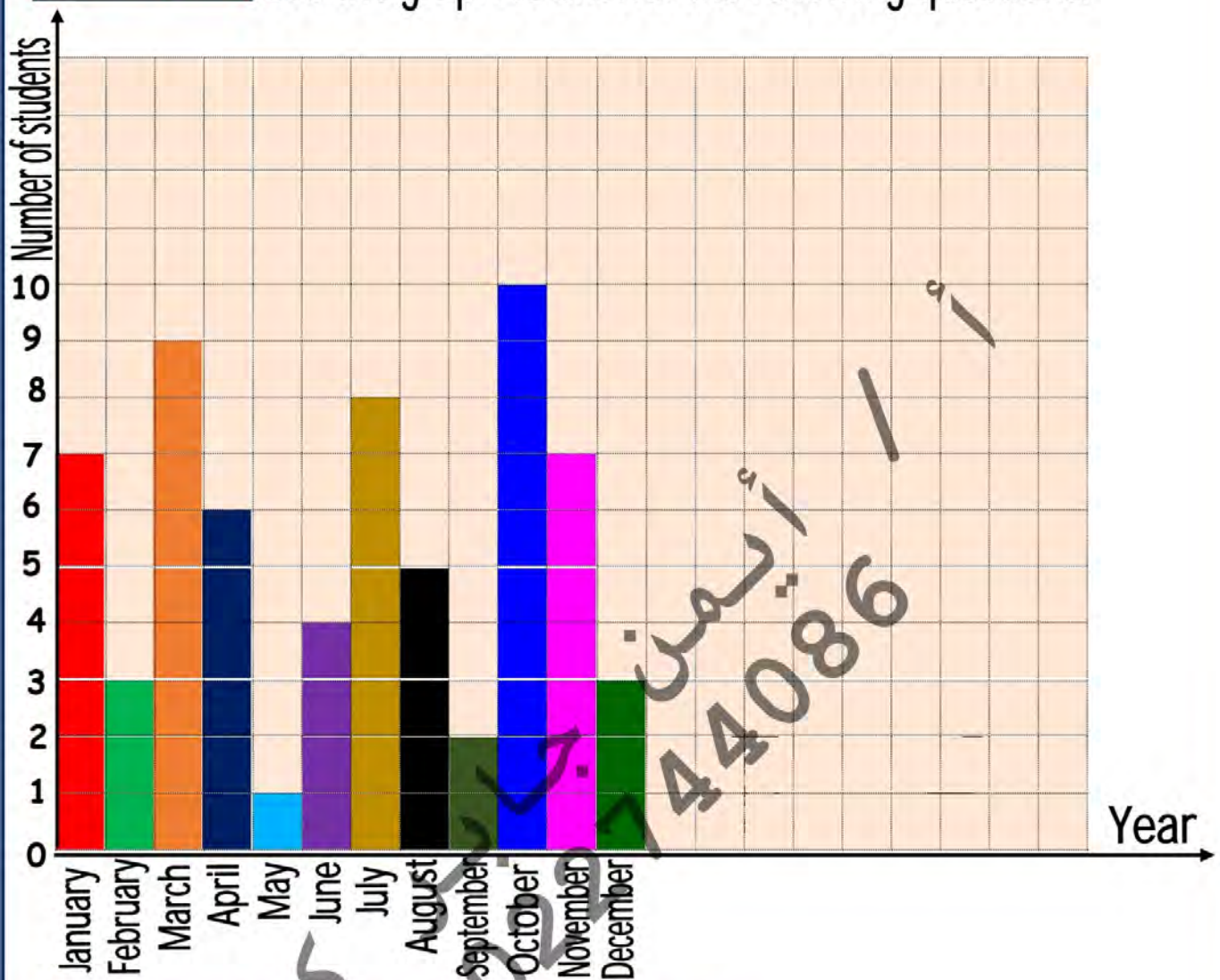
**Example:**

The table shows some of the sports activities for a group of students in grade 2 in a school. Analyze the data to know each student's favorite activity.

Sports activity	Football	Basketball	Volleyball	Swimming	Ping Pong
Number of students	30	40	50	20	10



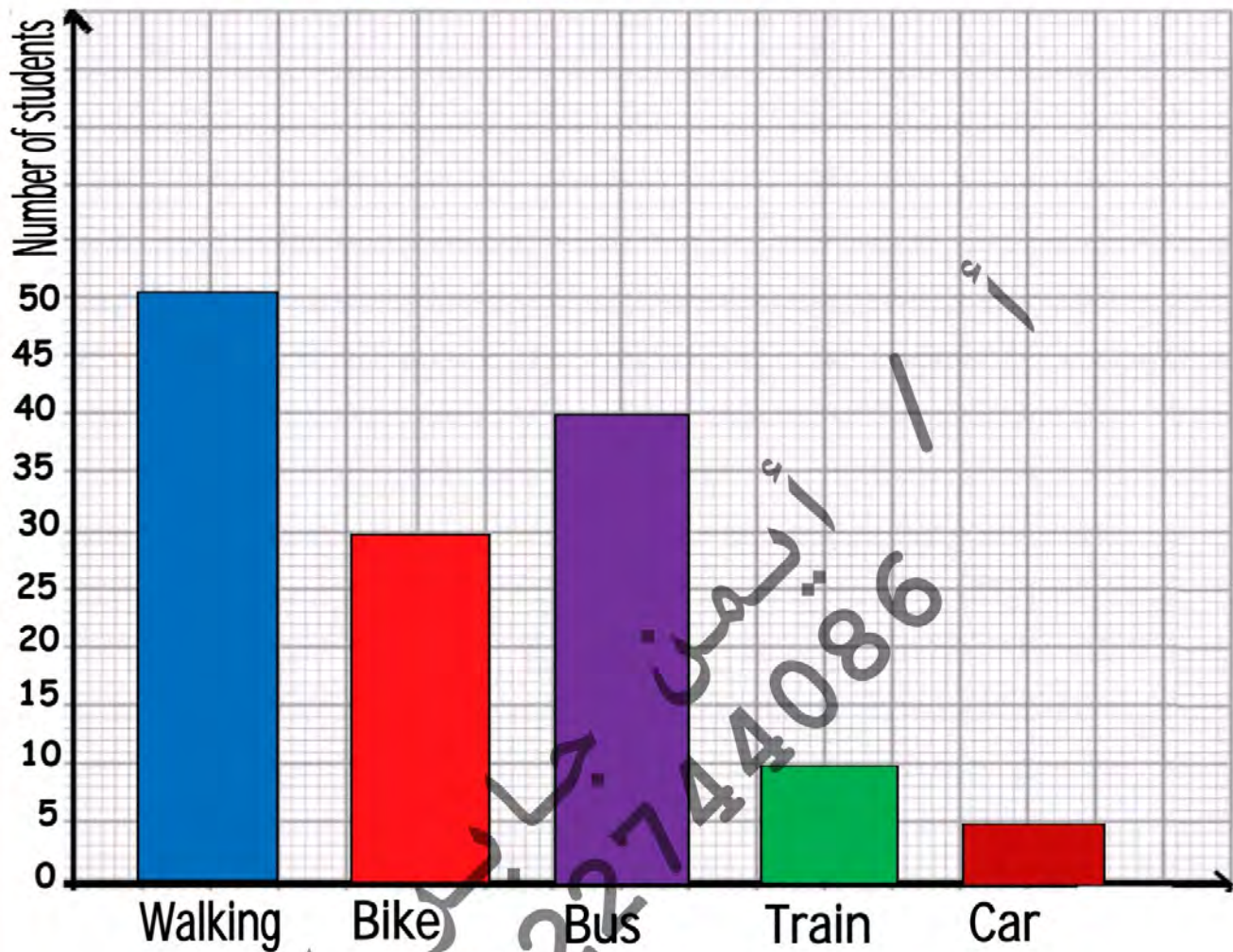
Example: Use the graph to answer the following questions:



Answer the following questions:

- 1) The month with the big number of birthdays is
- 2) The month with the small number of birthdays is
- 3) The month that has 7 birthdays is
- 4) The number of students that their birthday in January =
- 5) The number of students that their birthday in May =
- 6) The number of students that their birthday in March =
- 7) The number of students that their birthday in October =
- 8) The number of students all together that their birthday in July =

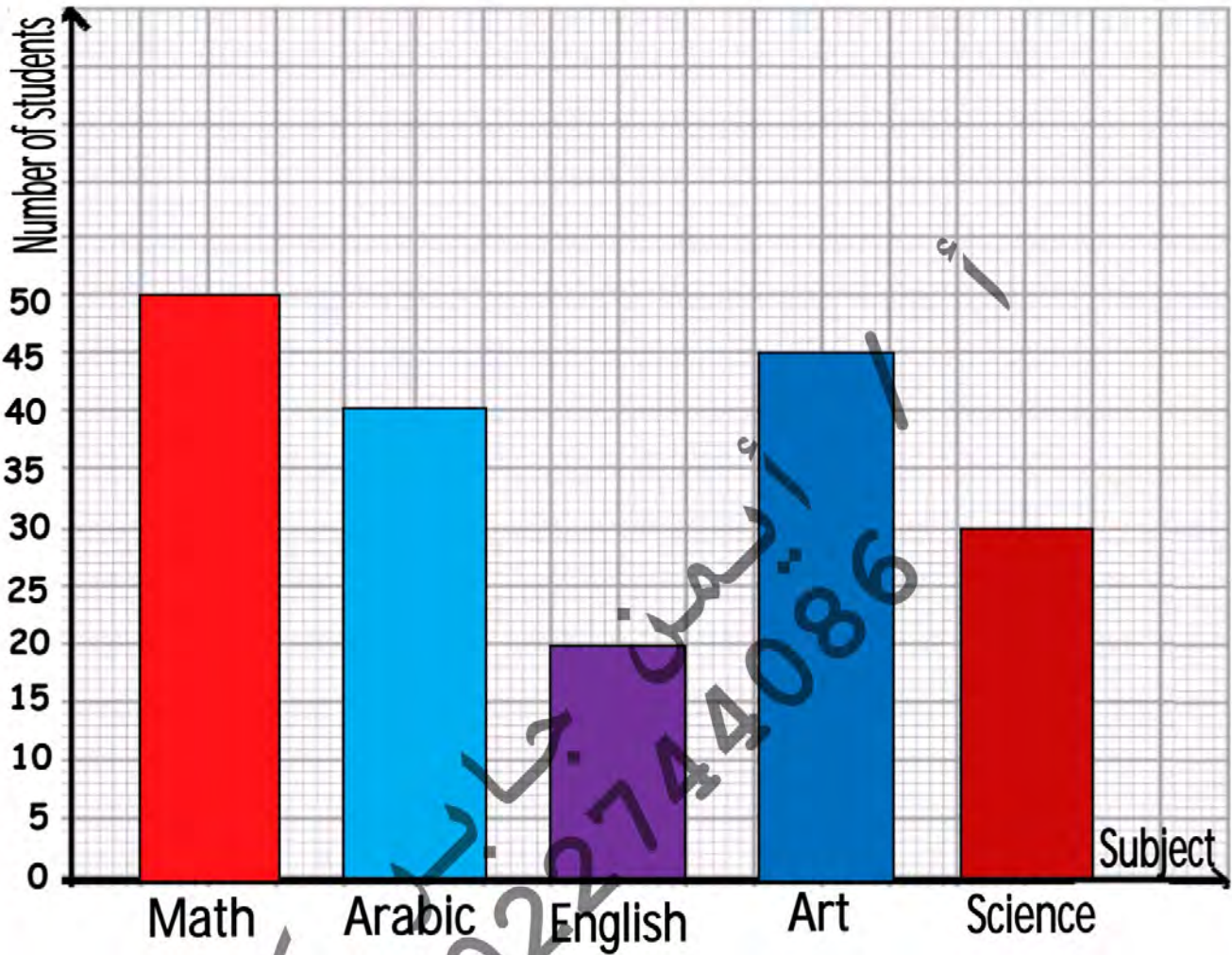
Example: A group of students at Dar Al Kawthar School prepared a graph showing how they got to school.



- ❖ How many students go by car?.....
- ❖ How many students go by bike?.....
- ❖ How most students go to school?.....
- ❖ How many students all together go to by car and by bike?
.....
- ❖ How many students all together go to by bus and by car?
.....
- ❖ How many students all together go to by car and by train?
.....

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Example: A teacher recorded students' favorite subjects on the bar graph. Use the graph to answer the following questions:



👉 Answer the following questions:

👉 What is the most favorite subject for students?

👉 What subject students do not like?

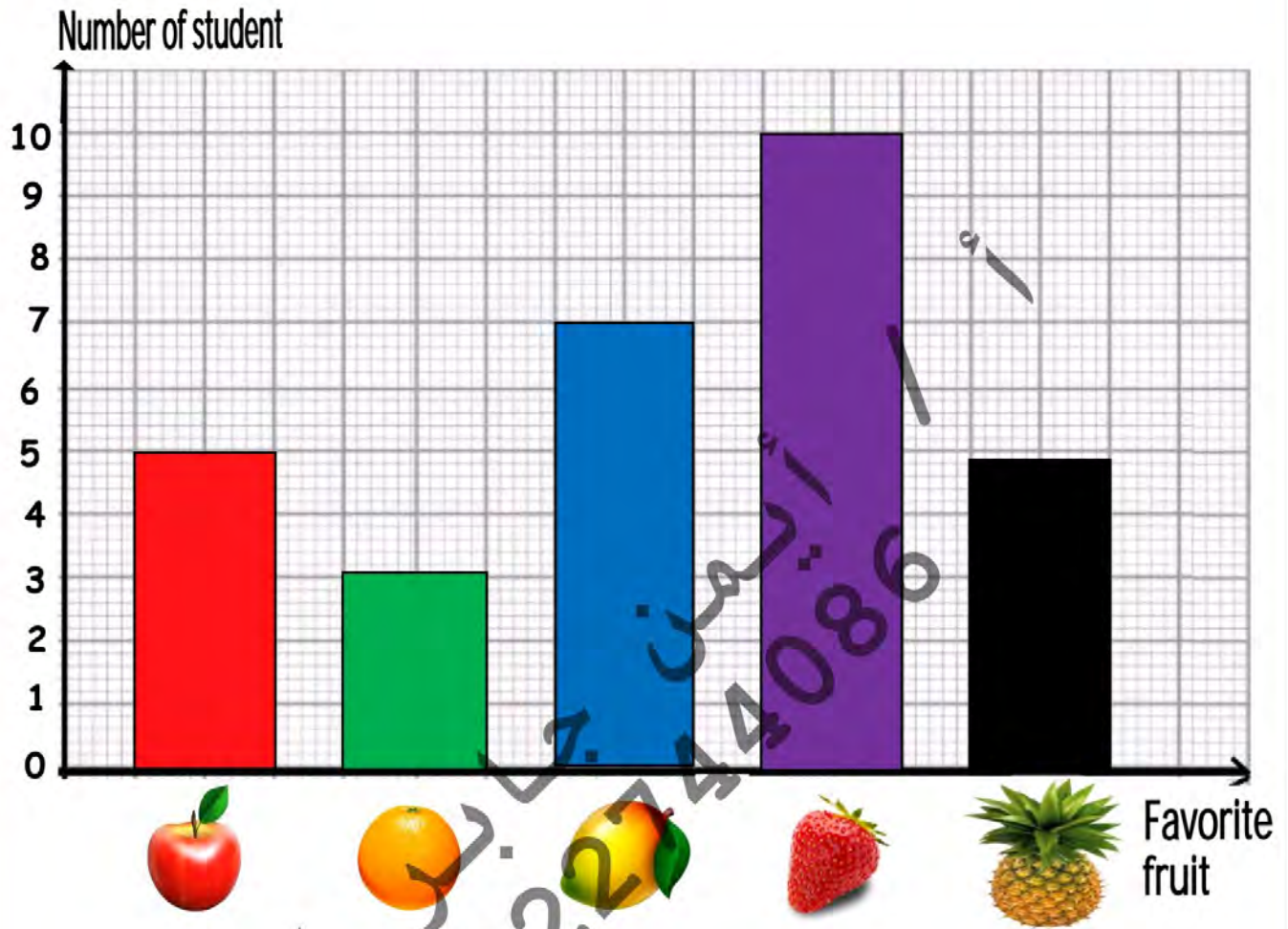
👉 What is the favorite subject for 50 students?

👉 How many students all together liked Arabic and English?

.....

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Example: Look at the favorite fruit graph and then answer the questions.



★ What is the most favorite fruit for students?

★ 2. How many students all together liked apples and orange?

.....

★ How many more students liked strawberries than orange? ?

.....

★ How many students like strawberry?

.....


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Pictograph

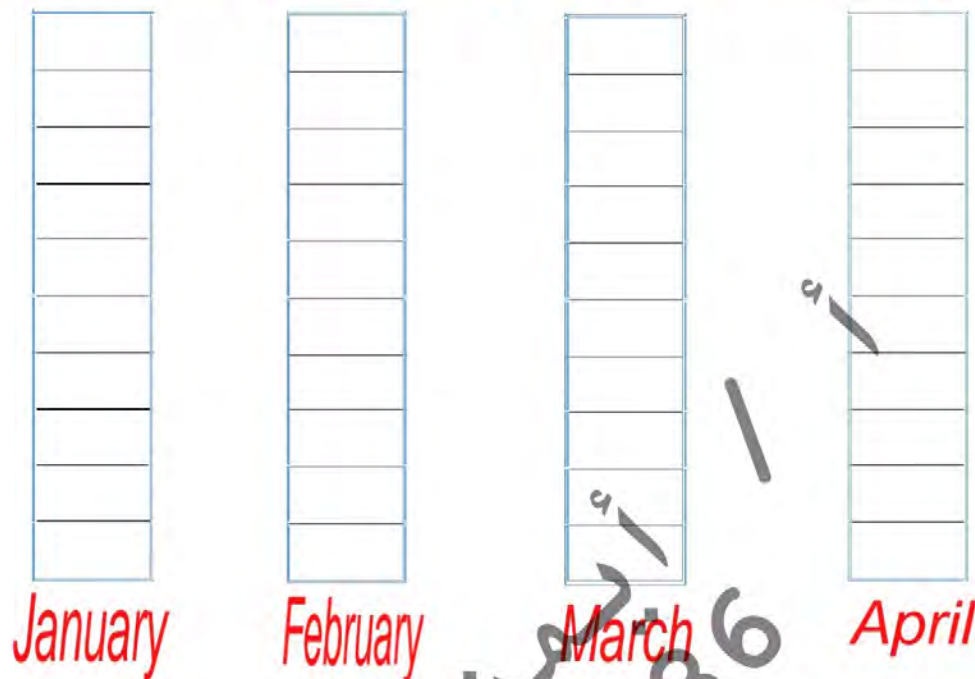
Pictograph: It is a graph to compare data using pictures or symbols

Example: The following pictograph shows the number of apples sold in the store in the past 4 months.




- What does the symbol  represent?
- How many apples sold in April?
- How many apples sold in January?
- How many apples sold in March?
- How many apples all together sold in April and January?
- How many apples all together sold in January and March?

 Use the previous apple pictograph to create bar graph:



Example: Arwa helps her mother in planting flowers in the garden. Try to know the flowers Arwa planted in the past few days by looking at the image below, then answer the following questions:

MONDAY	         
TUESDAY	   
WEDNESDAY	  
THURSDAY	             
FRIDAY	    

Picture key:



= One flower



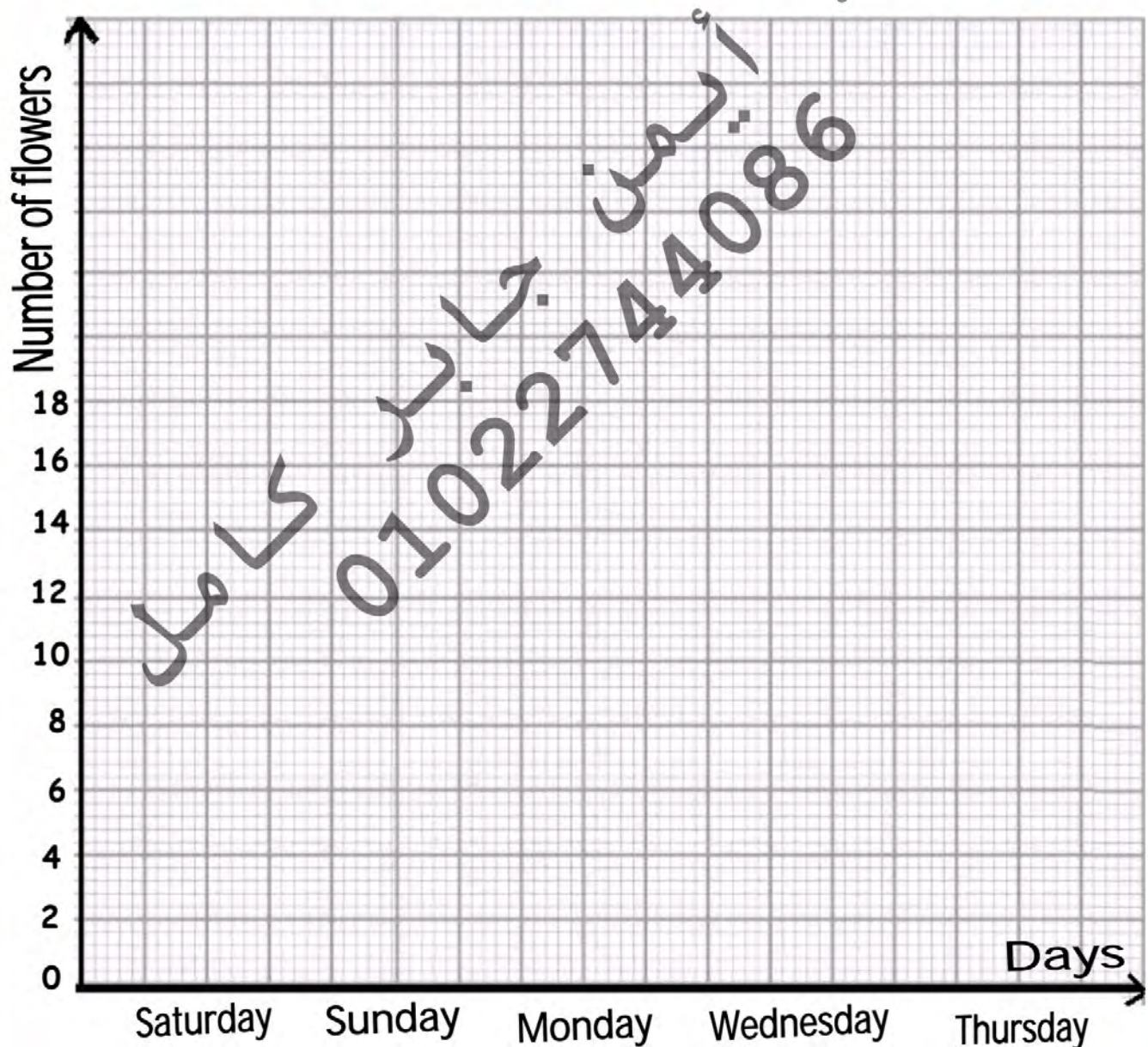
= Two flowers

- ✍ What does the symbol  represent?
- ✍ How many flowers Arwa planted on Wednesday?
- ✍ On what day did Arwa plant the fewest flowers?
- ✍ On what day did Arwa plant many flowers?
- ✍ Draw symbols to represent 5 flowers.

.....

.....

- ✍ Use the previous flowers pictograph to create bar graph:



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Notice, then complete:

2	4			10
10	8		1	2
6	8			14
5	10		20	
30	40			70
55	50		40	

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Complete using the Suitable sign (> , = , <)

$$66 \bigcirc 36$$

$$86 \bigcirc 63$$

$$95 \bigcirc 59$$

$$6+60 \bigcirc 66$$

$$75 \bigcirc 43$$

$$13 \bigcirc 31$$

$$53 \bigcirc 89$$

$$55 \bigcirc 84$$

$$90 \bigcirc 50$$

$$99 \bigcirc 19$$

$$92 \bigcirc 62$$

$$81 \bigcirc 18$$



Complete:



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للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائية 50 جنيهاً ترسل علي الواتس



Mental Math:

The doubles mental math strategy:



$$1 + 1 = \dots$$



$$2 + 2 = \dots$$



$$3 + 3 = \dots$$



$$4 + 4 = \dots$$



$$5 + 5 = \dots$$



$$6 + 6 = \dots$$



$$7 + 7 = \dots$$



$$8 + 8 = \dots$$



$$9 + 9 = \dots$$



$$10 + 10 = \dots$$



Write the before and after number:



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Use the mental math strategy to solve:

Circle the big number, then count from the left side:

Example: $6 + 4 = 10$

start from number 6

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Circle the big number, then count from the right side:

Example: $19 - 7 = \dots\dots\dots$

start from number 19

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائية 50 جنيهاً ترسل علي الواتس



Use the number chart to find the results:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

$$45 - 4 =$$

$$35 + 5 =$$

$$3 + 7 =$$

$$22 + 8 =$$

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$$35 - 9 =$$

$$12 - 5 =$$



Use the number line to solve:



$$10 + 15 =$$

$$22 - 9 =$$

$$16 + 6 =$$

$$18 - 15 =$$

$$9 + 12 =$$

$$14 - 4 =$$

$$17 + 3 =$$

$$22 - 13 =$$

$$11 + 6 =$$

$$12 - 6 =$$

$$12 + 9 =$$

$$15 - 7 =$$

للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائية 50 جنيهاً ترسل علي الواتس

$$9 + 7 =$$

$$12 - 3 =$$

$$11 + 4 =$$

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Ones and Tens



Write the number:

Tens 9	Ones 9	=	
-----------	-----------	---	--

Tens 0	Ones 9	=	
-----------	-----------	---	--

Tens 4	Ones 6	=	
-----------	-----------	---	--

Tens 5	Ones 3	=	
-----------	-----------	---	--

للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائية 50 جنيهاً ترسل علي الواتس

Tens 2	Ones 7	=	
-----------	-----------	---	--

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Use the number chart to add and subtract (10):

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

$$22 + 10 =$$

$$43 - 10 =$$

$$31 + 10 =$$

$$15 - 10 =$$

$$30 + 10 =$$

$$34 - 10 =$$

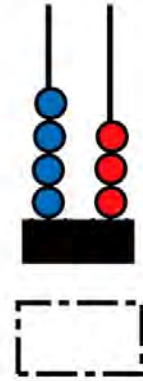
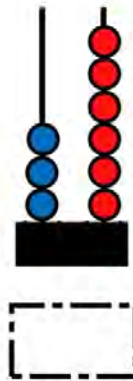
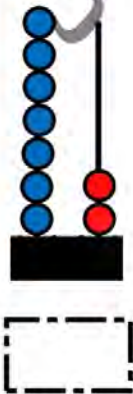
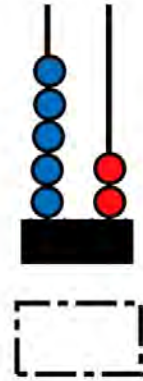
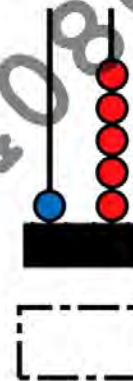
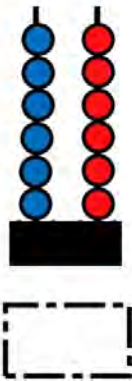
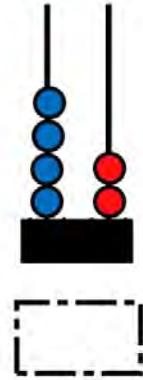
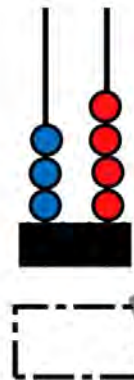
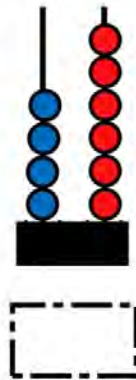
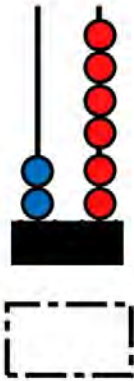
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$$4 + 10 =$$

$$25 - 10 =$$



Count and write the number:



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Components of number (10)



1 + 9
2 + 8
3 + 7
4 + 6
5 + 5

1 + 9

2 + 8

3 + 7

0 + 10

10

4 + 6

5 + 5





Addition and Subtraction using Partition

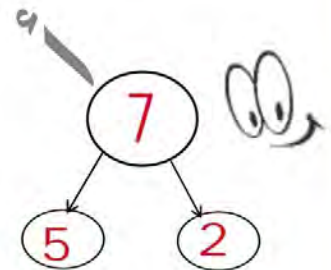
You can use the components of number (10):

Exampe: $6 + 7$

You can part the number. Number 6 is $3 + 3$ and the components of number 10 are 3 and 7 so you can rewrite using the components of number:

Example

$$3 + 7 = 10$$



$$15 - 7 =$$

$$15 - 5 - 2 =$$

$$15 - 5 = 10$$

$$10 - 2 = 8$$



Complete using partition:

$12 - 3$	$12 - \dots = 10$	$12 - 3 = \dots$
$7 + 5$	$7 + \dots = 10$	$7 + 5 = \dots$
$8 + 5$	$8 + \dots = 10$	$8 + 5 = \dots$
$16 - 7$	$16 - \dots = 10$	$16 - 7 = \dots$
$12 - 5$	$12 - \dots = 10$	$12 - 5 = \dots$
$7 + 4$	$7 + \dots = 10$	$7 + 4 = \dots$
$18 - 9$	$18 - \dots = 10$	$18 - 9 = \dots$
$13 - 3$	$13 - \dots = 10$	$13 - 3 = \dots$

Word problems using mental math strategy



Read and answer using mental math strategy:

Example 1 Ahmed has 5 books and Mohamed has 9 books. How many books all together they have?

Answer:

Example 2 A cage of 9 birds. 3 birds were left. How many birds are in the cage now?

Answer:

Example 3 Ayman has 8 pens and father gave him 10 pens. How many pens all together Ayman has?

Answer:

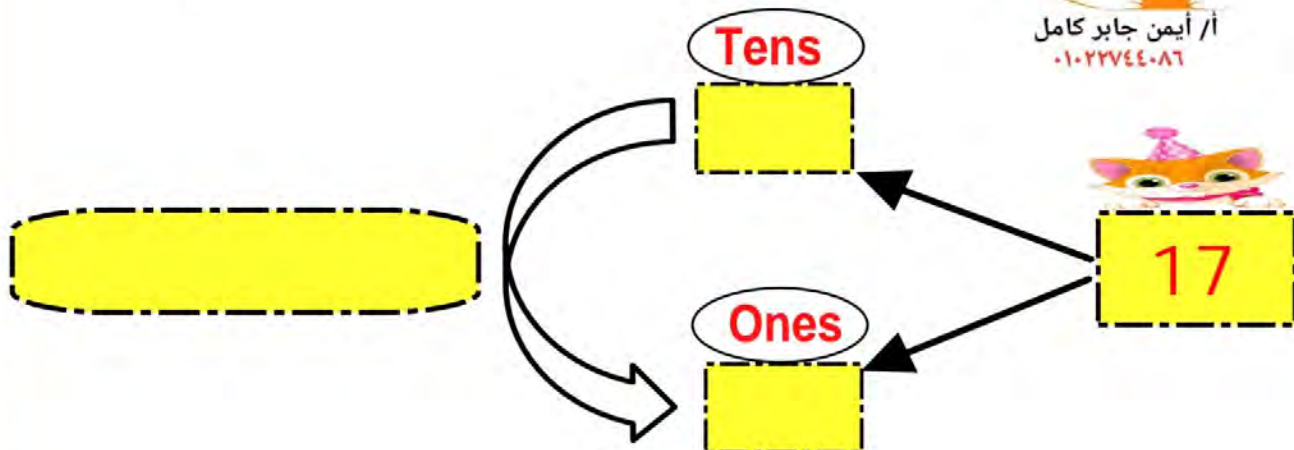
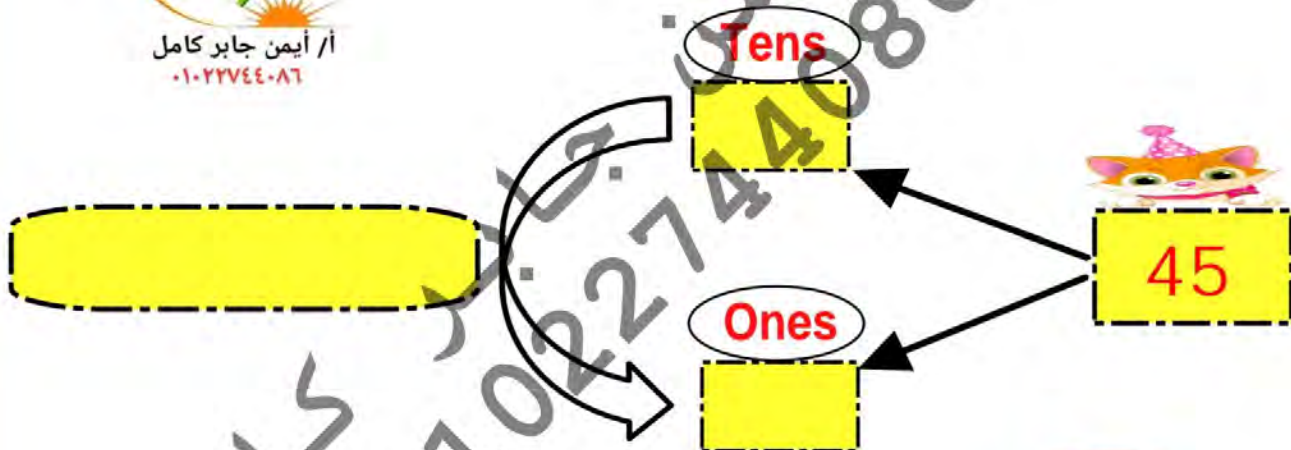
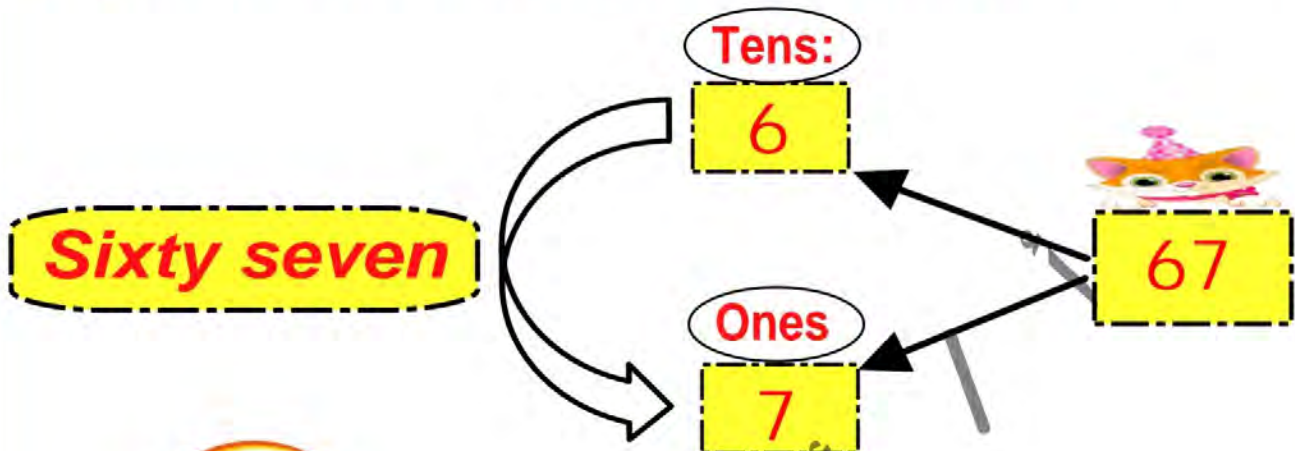
Example 4 Omar caught 7 fish, then 5 fish. How many fish all together he has?

Answer:

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Read the numbers and write the ones & tens:



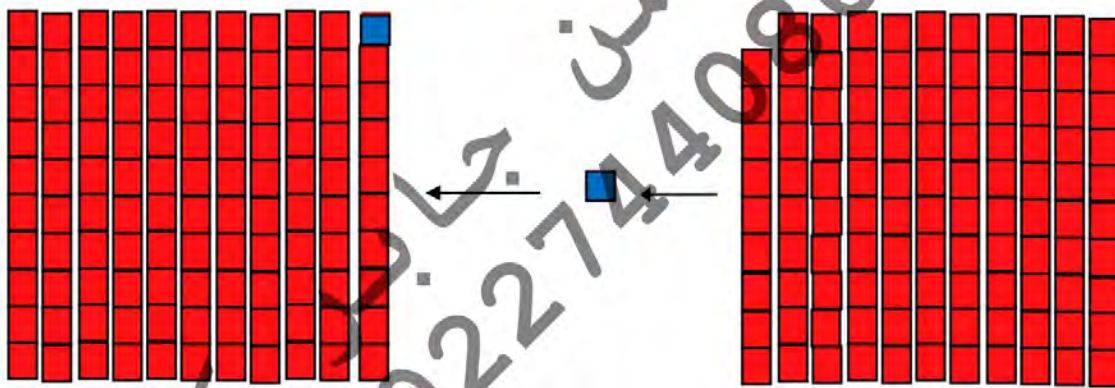


Count in hundreds

Remember:

9 is the biggest 1-digit number consisting of one number. If you want to know the following number add 1, then we get 10.
(10) is the smallest number consisting of 2-digit numbers.

99 is the biggest number consisting of 2- digit numbers. If you want to know the following number add 1, then we get 100.
(100) is the smallest number consisting of 3-digit numbers.



$$99 + 1 = 100$$



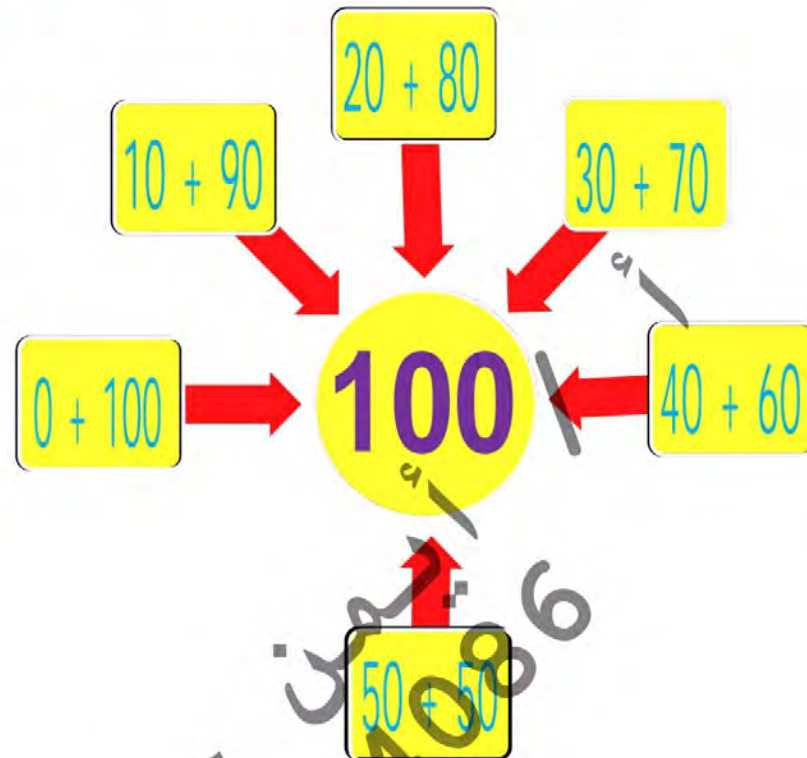
السادة الزملاء سعر المذكرة بدون اسم أو علامة مائة 50 جنيهاً ترسل علي الواتس

Components of number (100)



100

- $10 + 90$
- $20 + 80$
- $30 + 70$
- $40 + 60$
- $50 + 50$



Remember:

$$8 \text{ tens} + 2 \text{ tens} = 10 \text{ tens}$$

$$80 + 20 = 100$$



Complete:

1) $5 \text{ tens} + 5 \text{ tens} = \dots\dots\dots \text{ tens.}$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

2) $4 \text{ tens} + 6 \text{ tens} = \dots\dots\dots \text{ tens.}$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

3) $\dots\dots\dots + 7 \text{ tens} = 10 \text{ tens.}$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

4) $8 \text{ tens} + \dots\dots\dots \text{ tens} = \dots\dots\dots \text{ tens.}$

$$\dots\dots\dots + 20 = \dots\dots\dots$$

5) $1 \text{ ten} + \dots\dots\dots \text{ tens} = 10 \text{ tens.}$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

Doubles of number (100)



$$1 \text{ hundred} = 100$$



$$2 \text{ hundreds} = 200$$



$$3 \text{ hundreds} = 300$$



$$4 \text{ hundreds} = 400$$



$$5 \text{ hundreds} = 500$$



$$6 \text{ hundreds} = 600$$



$$7 \text{ hundreds} = 700$$



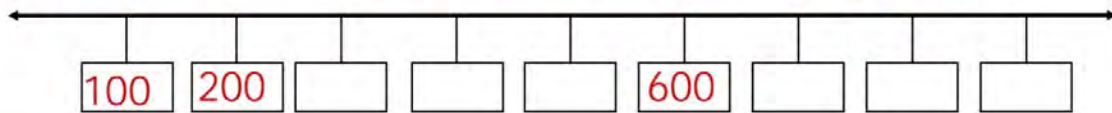
$$8 \text{ hundreds} = 800$$



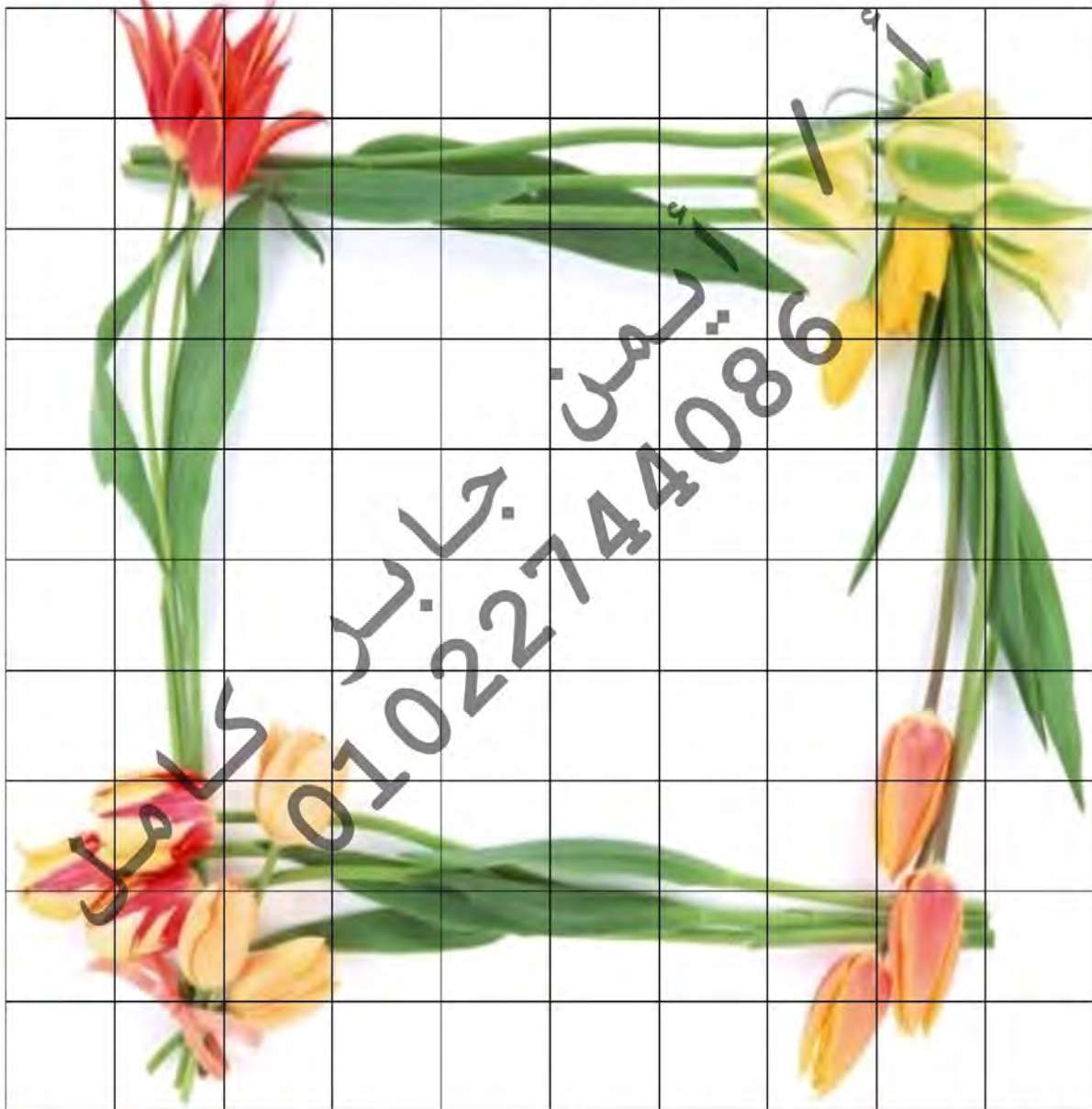
$$9 \text{ hundreds} = 900$$



Write the missed numbers in its suitable place:



Write the numbers from 100 to 200:



Complete:

1) 1 hundred = tens.

3) 5 hundreds = tens.

5) 700 = hundreds.

2) 8 hundreds = tens.

4) 900 = hundreds.

6) 300 = hundreds.

Complete:



$$\text{..... tens} + 6 \text{ tens} = 10 \text{ tens}$$

$$40 + \text{.....} = 100$$

$$1 \text{ ten} + \text{.....tens} = 10 \text{ tens}$$

$$\text{.....} + 90 = 100$$



$$\text{..... tens} + 3 \text{ tens} = 10 \text{ tens}$$

$$70 + \text{.....} = 100$$

$$\text{..... hundreds} + \text{..... hundreds} = \text{..... hundreds}$$

$$400 + 200 = \text{.....}$$

$$7 \text{ hundreds} + \text{..... hundreds} = \text{..... hundreds}$$

$$\text{.....} + 200 = \text{.....}$$



$$\text{..... hundreds} + \text{..... hundreds} = \text{..... hundreds}$$

$$400 + 300 = \text{.....}$$

$$900 - \text{.....} = 400$$

Complete:



—



..... - = pounds



+



..... + = pounds



+

..... + = pounds

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—



..... - = pounds

The place value:

The place value: It is the value of the number if it is in ones, tens or hundreds or the value of a digit depending on its position within a number.

The digit value: It is the value of what is equal to the digit in a number.

Example:

The place value of 4 in 456 is hundreds and its numerical or digit value is 400 hundreds.

Complete:

- 1) The place value of 4 in 718 is
- 2) The place value of 8 in 978 is
- 3) The digit value of 5 in 225 is
- 4) The digit value of 4 in 641 is

Choose the correct answer:

- 1) The place value of 9 in 954 is
(ones - tens - hundreds)
- 2) The place value of 2 in 312 is
(ones - tens - hundreds)
- 3) The digit value of 6 in 867 is
(6 - 60 - 600)

للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائة 50 جنيهاً ترسل علي الواتس



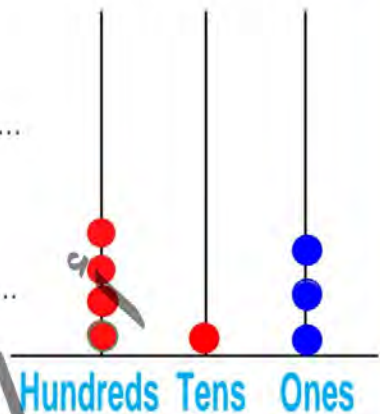
Complete:

Digit in numbers:

.....

Digit in words:

.....

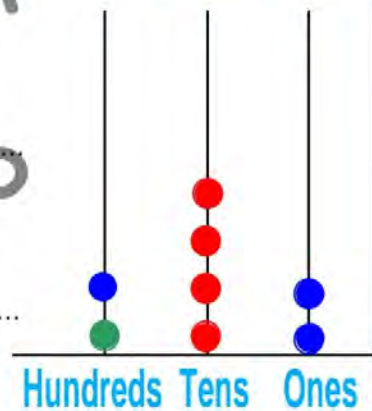


Digit in numbers:

.....

Digit in words:

.....

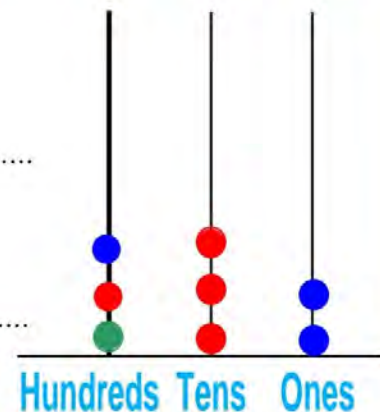


Digit in numbers:

.....

Digit in words:

.....

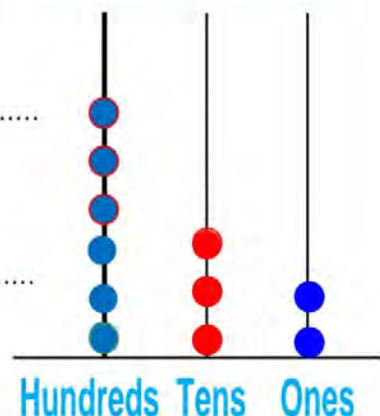


Digit in numbers:

.....

Digit in words:

.....

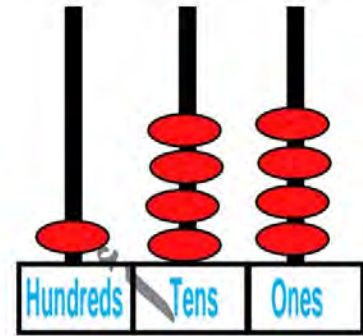




Complete as the example:

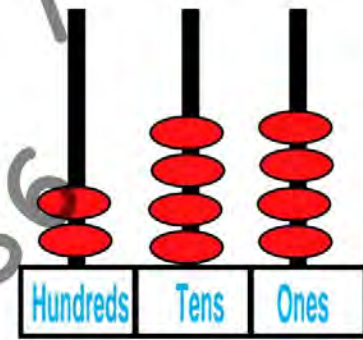
Hundreds	Tens	Ones
٢	٤	٤

144



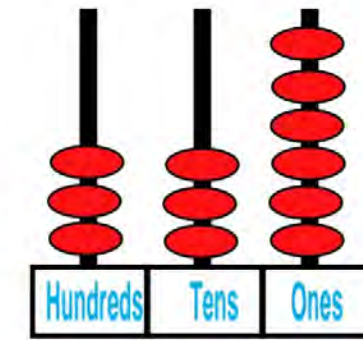
Hundreds	Tens	Ones
٢	٤	٤

244



Hundreds	Tens	Ones

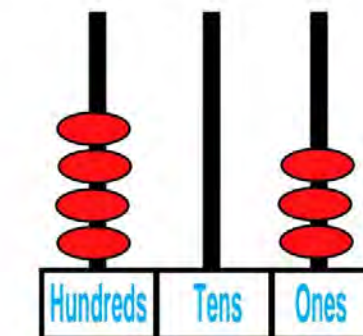
.....



للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائية 50 جنيهاً ترسل علي الواتس

Hundreds	Tens	Ones

.....





Complete:

1) 4 ones, 5 tens and 2 hundreds =

2) 6 ones, 3 tens and 4 hundreds =

3) 2 ones, 5 tens and 7 hundreds =

4) 7 ones, 8 tens and 9 hundreds =



Complete:

1) 6 ones and 9 hundreds =

2) 3 tens and 6 hundreds =

3) 7 tens and 8 ones =

4) 5 hundreds, 7 tens and 7 ones =



Write in words:

1) 309

2) 154

3) 654

5) 315

للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائية 50 جنيهاً ترسل علي الواتس



Write in digits:

- 1) Nine hundreds =
- 2) Seven hundred forty-eight =
- 3) Three hundreds and five =
- 4) Five hundred fifty-five =
- 5) One hundred fourteen =
- 6) Six hundred twenty-nine =
- 7) Four hundred eighty-seven =
- 8) Eight hundred thirty-three =



Complete:

- 1) 624 = ones tens hundreds
- 2) 154 = ones tens hundreds
- 3) 458 = ones tens hundreds
- 4) 301 = ones tens hundreds
- 5) 586 = ones tens hundreds
- 6) 605 = ones tens hundreds
- 7) 931 = ones tens hundreds
- 8) 809 = ones tens hundreds



Choose the correct answer:

- 1) The digit value of 4 in 482 is (4 - 40 - 400).
- 2) The digit value of 7 in 719 is (7 - 70 - 700).
- 3) The digit value of 3 in 493 is (3 - 30 - 300).
- 4) The digit value of 0 in 801 is (0 - 10 - 100).
- 5) The digit value of 4 in 648 is (4 - 40 - 400).
- 6) The digit value of 6 in 695 is (6 - 60 - 600).



Complete as the example:

$$5 + 30 + 200 = 235$$

$$1) 6 + \dots + 500 = 536$$

$$2) 7 + 50 + 800 = \dots$$

$$3) \dots + \dots + \dots = 782$$

$$4) \dots + \dots + \dots = 853$$

$$5) \dots + \dots + \dots = 777$$

$$6) \dots + \dots + \dots = 909$$

$$7) \dots + \dots + \dots = 320$$

$$8) \dots + \dots + \dots = 231$$

للسادة الزملاء سعر المذكرة بدون اسم أو علامة مائية 50 جنيهاً ترسل علي الواتس



Circle the correct digit as in the example:

7 tens and 8 hundreds

780 - 870 - 807 - 708

4 ones, 5 tens and 6 hundreds

564 - 654 - 456 - 645

9 ones and 2 hundreds

092 - 209 - 920 - 902

3 ones, 4 tens and 1 hundred

314 - 413 - 134 - 143

8 tens and 9 hundreds

980 - 890 - 809 - 908

8 ones, 5 tens and 6 hundreds

568 - 658 - 856 - 685

3 ones and 2 hundreds

032 - 203 - 320 - 302

5 ones, 4 tens and 1 hundred

514 - 415 - 154 - 145

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل



Complete the table:

Digit	add1	add 10	add 100
879			
799			
145			
14			
594			



Complete the table:

Digit	subtract 1	subtract 10	subtract 100
579			
299			
645			
34			
994			

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل



Complete using (<), (>) or (=):

7 hundreds and 5 ones 500 + 7

9 hundreds and 6 ones 778

6 hundreds 60 tens

224 345

899 889



Complete as the example:

1) 750 comes before 751.

2) 720 comes after 719.

3) 314 comes before

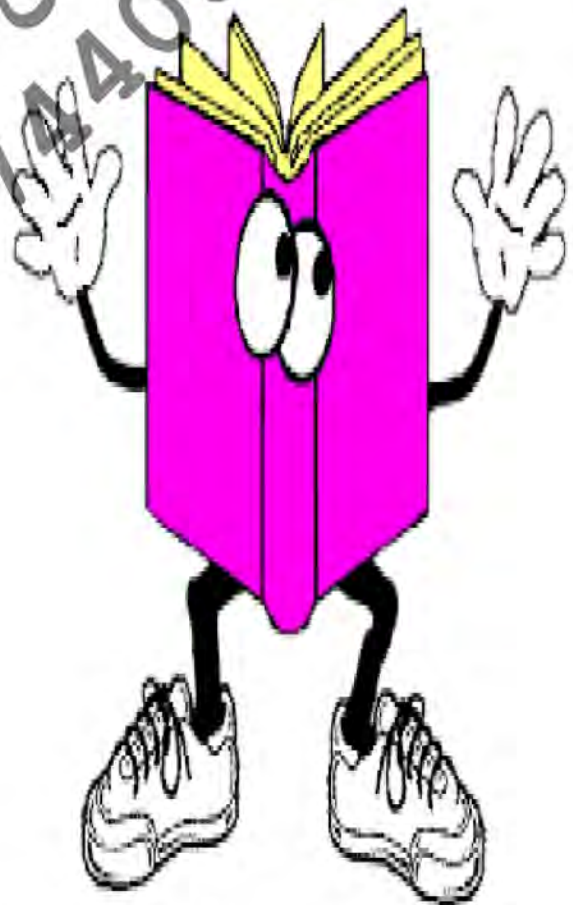
4) 258 comes after

5) 720 comes before

6) 780 comes after

7) 614 comes before

8) 458 comes after



سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل



Arrange the numbers from least to greatest (ascending):

459 - 518 - 428 - 580 - 400

..... ' ' ' '

199 - 220 - 174 - 215 - 147

..... ' ' ' '

629 - 620 - 674 - 615 - 647

..... ' ' ' '

332 - 500 - 847 - 750 - 621

..... ' ' ' '



Arrange the numbers from greatest to least (descending):

972, 909, 929, 913, 954

..... ' ' ' '

799, 843, 751, 739, 815

..... ' ' ' '

286, 425, 357, 624, 647

..... ' ' ' '

246, 455, 327, 634, 687

..... ' ' ' '

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل



Circle the greater number:

$246 - 455$

$316 - 154$

$887 - 885$

$310 - 380$

$657 - 765$

$702 - 597$



Circle the smaller number:

$656 - 565$

$451 - 541$

$440 - 404$

$274 - 247$

$688 - 886$

$74 - 47$



Complete the table as example:

Digit	The small number	The great number
1 - 5 - 4	145	154
9 - 8 - 1		
5 - 0 - 4		
2 - 7 - 3		
8 - 2 - 4		



Complete in the same pattern:

808

807



900

700





Write the greater and smaller number:

9 - 8 - 1

The great number

The small number

5 - 0 - 8

The great number

The small number

3 - 4 - 2

The great number

The small number

9 - 4 - 7

The great number

The small number

0 - 2 - 7

The great number

The small number

3 - 8 - 1

The great number

The small number



Complete:

1) comes before 456

2) comes after 456

3) is the greatest number of the digit 1 - 5 - 8

4) is the smallest number of the digit 1 - 8 - 2

5) is the greatest 3-digit number.

6) is the greatest 2-digit number.



Addition and subtraction



$$5 + 3 = 18$$



$$13 + 5 = 18$$

$$10 + 3 + 5 = 10 + 8 = 18$$

• Add:

$$\begin{array}{r} 410 \\ + 105 \\ \hline \end{array}$$

$$\begin{array}{r} 280 \\ + 317 \\ \hline \end{array}$$

$$\begin{array}{r} 811 \\ + 118 \\ \hline \end{array}$$

$$\begin{array}{r} 35 \\ + 42 \\ \hline \end{array}$$

$$\begin{array}{r} 815 \\ + 135 \\ \hline \end{array}$$

$$\begin{array}{r} 220 \\ + 817 \\ \hline \end{array}$$

$$\begin{array}{r} 822 \\ + 608 \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ + 56 \\ \hline \end{array}$$

$$\begin{array}{r} 818 \\ + 415 \\ \hline \end{array}$$

$$\begin{array}{r} 564 \\ + 318 \\ \hline \end{array}$$

$$\begin{array}{r} 684 \\ + 546 \\ \hline \end{array}$$

$$\begin{array}{r} 95 \\ + 11 \\ \hline \end{array}$$

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

• Add:

$$\begin{array}{r} 518 \\ + 211 \\ \hline \end{array}$$

$$\begin{array}{r} 620 \\ + 357 \\ \hline \end{array}$$

$$\begin{array}{r} 420 \\ + 128 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ + 58 \\ \hline \end{array}$$

$$\begin{array}{r} 458 \\ + 568 \\ \hline \end{array}$$

$$\begin{array}{r} 220 \\ + 885 \\ \hline \end{array}$$

$$\begin{array}{r} 812 \\ + 689 \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ + 67 \\ \hline \end{array}$$

$$\begin{array}{r} 179 \\ + 135 \\ \hline \end{array}$$

$$\begin{array}{r} 280 \\ + 817 \\ \hline \end{array}$$

$$\begin{array}{r} 422 \\ + 608 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ + 52 \\ \hline \end{array}$$

$$\begin{array}{r} 888 \\ + 485 \\ \hline \end{array}$$

$$\begin{array}{r} 544 \\ + 368 \\ \hline \end{array}$$

$$\begin{array}{r} 624 \\ + 526 \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 866 \\ + 985 \\ \hline \end{array}$$

$$\begin{array}{r} 548 \\ + 363 \\ \hline \end{array}$$

$$\begin{array}{r} 224 \\ + 326 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ + 15 \\ \hline \end{array}$$

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

• **Add:**

$$\begin{array}{r} 517 \\ + 111 \\ \hline \end{array}$$

$$\begin{array}{r} 629 \\ + 257 \\ \hline \end{array}$$

$$\begin{array}{r} 428 \\ + 328 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ + 78 \\ \hline \end{array}$$

$$\begin{array}{r} 558 \\ + 968 \\ \hline \end{array}$$

$$\begin{array}{r} 420 \\ + 785 \\ \hline \end{array}$$

$$\begin{array}{r} 612 \\ + 289 \\ \hline \end{array}$$

$$\begin{array}{r} 99 \\ + 37 \\ \hline \end{array}$$

$$\begin{array}{r} 779 \\ + 155 \\ \hline \end{array}$$

$$\begin{array}{r} 980 \\ + 847 \\ \hline \end{array}$$

$$\begin{array}{r} 322 \\ + 609 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ + 52 \\ \hline \end{array}$$

1) $200 + \dots = 782$

2) $\dots + \dots = 853$

3) $\dots + 584 = 777$

4) $564 + 546 = \dots$

5) $208 + \dots = 320$

6) $745 + 578 = \dots$



سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

Complete using (<), (>) or (=):8 hundreds and 5 ones $545 + 1$ 2 hundreds and 8 ones 7457 hundreds 65 tens114 795449 850**Read and complete:**

1) Amer has 375 pounds and his father gave him 250 pounds.
 Amer has = pounds.

2) Ahmed has 238 pounds and his brother gave him 179 pounds.
 Ahmed has = pounds.

3) 564 visited the zoo on Sunday. 389 visited on Monday.
 How many visitors all together visited the zoo on Sunday and on Monday?

Visitors on Sunday and on Monday = visitors.

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

4) Asmaa bought a toy (356 pounds) and a mobile (541 pounds).

Asmaa paid = pounds.

• **Complete:**

1) 8 ones, 6 tens and 4 hundreds =

2) 964 = + +

3) 735 = ones, tens and hundreds.

4) 318 comes before

5) 720 comes before

Subtraction:

• **Subtract:**

$$\begin{array}{r} 517 \\ - 111 \\ \hline \end{array}$$

$$\begin{array}{r} 629 \\ - 257 \\ \hline \end{array}$$

$$\begin{array}{r} 428 \\ - 328 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ - 78 \\ \hline \end{array}$$

$$\begin{array}{r} 558 \\ - 368 \\ \hline \end{array}$$

$$\begin{array}{r} 820 \\ - 785 \\ \hline \end{array}$$

$$\begin{array}{r} 612 \\ - 289 \\ \hline \end{array}$$

$$\begin{array}{r} 99 \\ - 37 \\ \hline \end{array}$$

• **Subtract:**

$$\begin{array}{r} 518 \\ - 211 \\ \hline \end{array}$$

$$\begin{array}{r} 620 \\ - 357 \\ \hline \end{array}$$

$$\begin{array}{r} 420 \\ - 128 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ - 58 \\ \hline \end{array}$$

$$\begin{array}{r} 658 \\ - 568 \\ \hline \end{array}$$

$$\begin{array}{r} 920 \\ - 885 \\ \hline \end{array}$$

$$\begin{array}{r} 812 \\ - 689 \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ - 67 \\ \hline \end{array}$$

$$\begin{array}{r} 179 \\ - 135 \\ \hline \end{array}$$

$$\begin{array}{r} 980 \\ - 817 \\ \hline \end{array}$$

$$\begin{array}{r} 722 \\ - 608 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ - 52 \\ \hline \end{array}$$

$$\begin{array}{r} 888 \\ - 485 \\ \hline \end{array}$$

$$\begin{array}{r} 544 \\ - 368 \\ \hline \end{array}$$

$$\begin{array}{r} 624 \\ - 526 \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 866 \\ - 385 \\ \hline \end{array}$$

$$\begin{array}{r} 548 \\ - 363 \\ \hline \end{array}$$

$$\begin{array}{r} 824 \\ - 326 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ - 15 \\ \hline \end{array}$$

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

• **Subtract:**

1) $900 - \dots\dots\dots = 782$

2) $\dots\dots\dots - \dots\dots\dots = 853$

3) $\dots\dots\dots - 584 = 777$

4) $564 - 546 = \dots\dots\dots$

5) $300 - \dots\dots\dots = 105$

6) $\dots\dots\dots - \dots\dots\dots = 553$

7) $\dots\dots\dots - 533 = 122$

8) $512 - 125 = \dots\dots\dots$

9) $\dots\dots\dots - 482 = 218$

10) $578 - 321 = \dots\dots\dots$



Complete using (<), (>) or (=):

$516 - 485$ 980

$494 - 99$ 100

$455 - 125$ $782 - 545$

$466 - 401$ $986 - 810$

$615 - 452$ $492 - 137$



Complete in the same pattern:

1) 894, 884, 874,

2) 200, 215, 230,

3) 432, 533, 634,

4) 650, 600, 550,

5) 950, 940, 930,

6) 200, 250, 300,

7) 411, 511, 611,

8) 950, 900, 850,

9) 794, 784, 774,

10) 211, 311, 411,

11) 430, 530, 630,

12) 150, 200, 250,

13) 220, 240, 260,

14) 430, 530, 630,

15) 800, 700, 600,

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

• Add:

$$\begin{array}{r} 557 \\ + 115 \\ \hline \end{array}$$

$$\begin{array}{r} 827 \\ + 205 \\ \hline \end{array}$$

$$\begin{array}{r} 457 \\ + 325 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ + 75 \\ \hline \end{array}$$

$$\begin{array}{r} 501 \\ + 904 \\ \hline \end{array}$$

$$\begin{array}{r} 441 \\ + 704 \\ \hline \end{array}$$

$$\begin{array}{r} 671 \\ + 204 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ + 34 \\ \hline \end{array}$$

• Subtract:

$$\begin{array}{r} 598 \\ - 245 \\ \hline \end{array}$$

$$\begin{array}{r} 698 \\ - 345 \\ \hline \end{array}$$

$$\begin{array}{r} 489 \\ - 124 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ - 45 \\ \hline \end{array}$$

$$\begin{array}{r} 625 \\ - 596 \\ \hline \end{array}$$

$$\begin{array}{r} 952 \\ - 896 \\ \hline \end{array}$$

$$\begin{array}{r} 852 \\ - 696 \\ \hline \end{array}$$

$$\begin{array}{r} 95 \\ - 66 \\ \hline \end{array}$$

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

Polygons

Polygon is a closed shape formed with stright lines.



Not a polygon



4 sides



3 sides



4 sides



5 sides



4 sides



6 sides



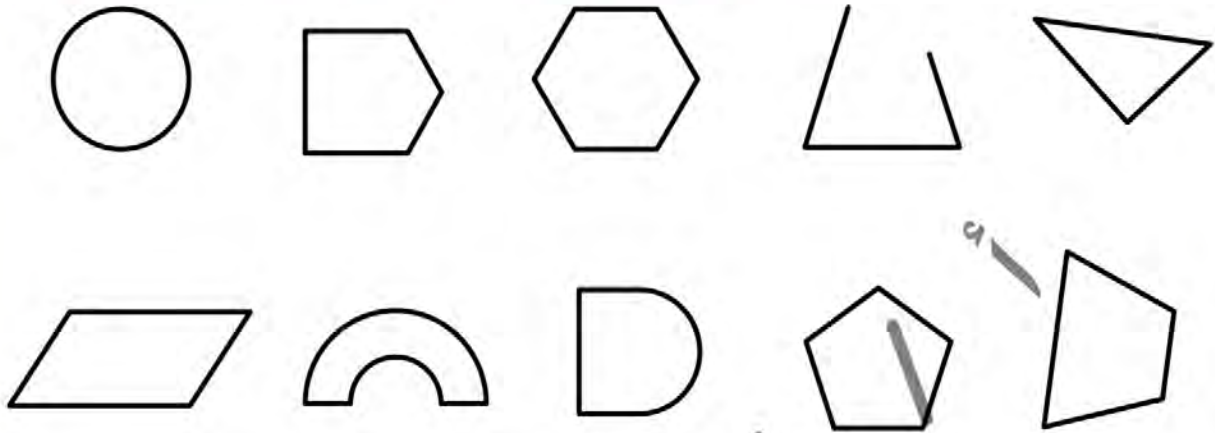
4 sides





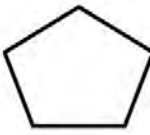
10 sides

The stright lines that form the polygon are called sides, and the points where two edges meet are the polygon's vertices or corners.

Put (✓) under every polygon:

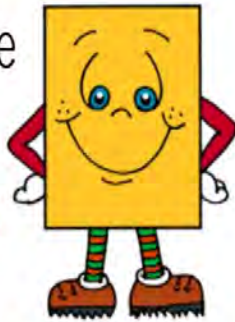


* Complete the table:

Shape	Name of the shape	Number of sides	Number of vertices




سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

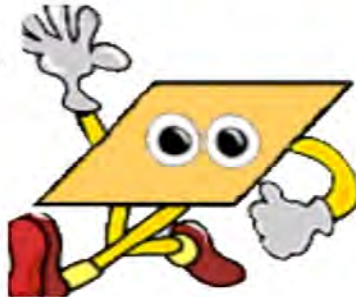
Rectangle

4 sides
4 vertices

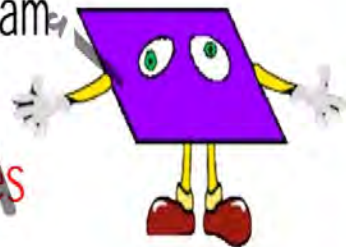
Square

4 sides
4 vertices

Rhombus

4 sides
4 vertices

parallelogram

4 sides
4 vertices

Pentagon

5 sides
5 vertices

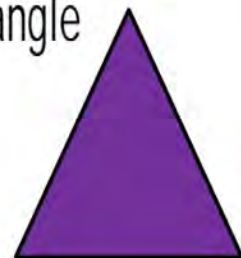
Trapezoidal

4 sides
4 vertices

Hexagon

6 sides
6 vertices

triangle

3 sides
3 vertices

Number of sides = Number of vertices

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل

Length Measurement

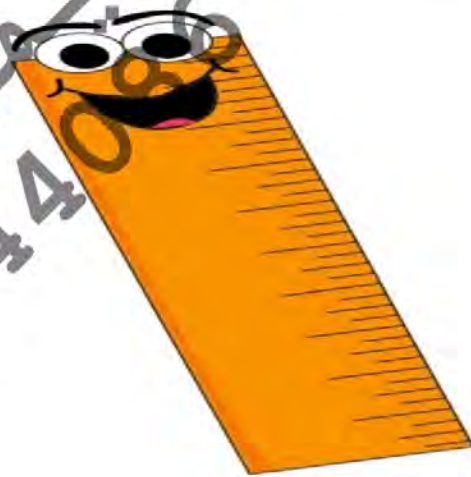


Lengths are measured in meters and centimeters.
Meter is used to measure large lengths such as buildings.
Centimeter is used to measure small lengths such as the pen.

$$\text{Meter} = 100 \text{ centimeter} = 100 \text{ cm}$$

* Complete:

- 1) 7 meters = cm
- 2) 5 meters = cm
- 3) 9 meters = cm
- 4) 2 meters = cm



• Complete as the example:

$$8 \text{ meters and } 20 \text{ centimeters} = 800 + 20 = 820 \text{ cm.}$$

- 1) 9 meters and 50 centimeters = + = cm.
- 2) 1 meter and 75 centimeters = + = cm.
- 3) 7 meters and 60 centimeters = + = cm.
- 4) 3 meters and 13 centimeters = + = cm.
- 5) 8 meters and 23 centimeters = + = cm.

• Complete:

- 1) 2 meters and 10 centimeters = + = cm.
- 2) 4 meter and 15 centimeters = + = cm.
- 3) 6 meters and 66 centimeters = + = cm.
- 4) 8 meters and 83 centimeters = + = cm.
- 5) 3 meters and 33 centimeters = + = cm.
- 6) meters and 50 centimeters = + = 850 cm.
- 7) 1 meter and centimeters = + = 158 cm.
- 8) 7 meters and centimeters = + 50 = cm.
- 9) meters and 13 centimeters = 500 + = cm.
- 10) meters and centimeters = 200 + 18 = cm.

• Complete using (<), (>) or (=):

- | | | |
|-----------------------------|----------------------|--------|
| 8 meters and 20 centimeters | <input type="text"/> | 920 cm |
| 2 meters and 45 centimeters | <input type="text"/> | 120 cm |
| 5 meters and 25 centimeters | <input type="text"/> | 925 cm |
| 6 meters and 43 centimeters | <input type="text"/> | 900 cm |
| 3 meters and 85 centimeters | <input type="text"/> | 20 cm |
| 9 meters and 5 centimeters | <input type="text"/> | 90 cm |

Arrange from least to greatest (ascending):

80 cm, 50 cm, 90 cm, 20 cm, 85 cm, 75 cm.

.....

525 cm, 285 cm, 534 cm, 545 cm, 536 cm, 531 cm.

.....

70 cm, 80 cm, 52 cm, 22 cm, 85 cm, 77 cm.

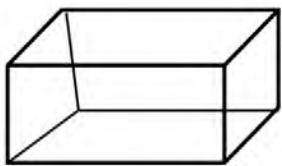
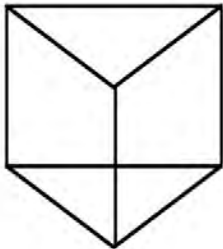

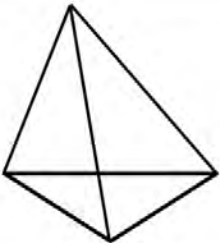
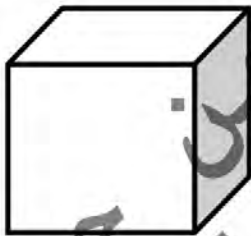
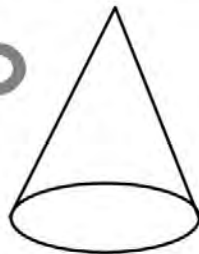
.....

45 cm, 78 cm, 98 cm, 74 cm, 85 cm, 12 cm.

.....

three-dimensional shape (3D shapes)

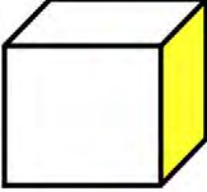
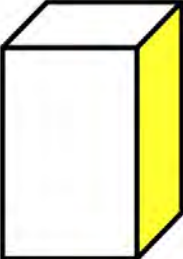

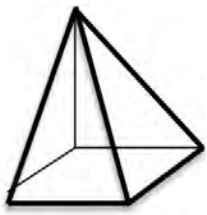
Solids

		
Rectangular prism (cuboid)	Triangular Prism	Cylinder
		
Square based pyramid	Cube	Cone

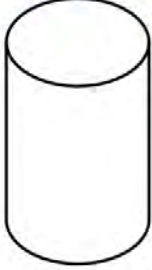
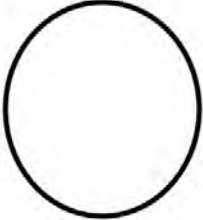

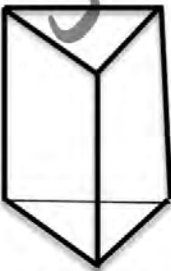


Sphere

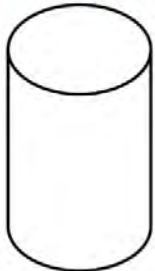
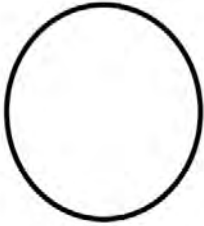

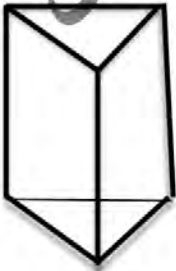
the number of faces, edges, and vertices:

Solid	Faces	Edges	Vertices
 Cube	6	12	8
 Rectangular prism	6	12	8
 Triangular pyramid	4	6	4
 Square based pyramid	5	8	5



Solid	Faces	Edges	Vertices
 Cylinder	0	0	0
 Sphere	0	0	0
 Cone	0	0	1
 Triangular Prism	5	9	6



Solid	Faces	Edges	Vertices
 Cylinder			
 Sphere			
 Cone			
 Triangular Prism			



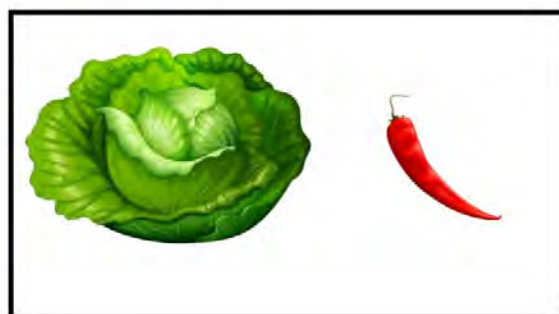
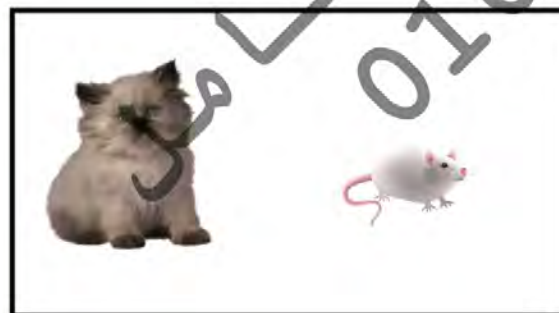
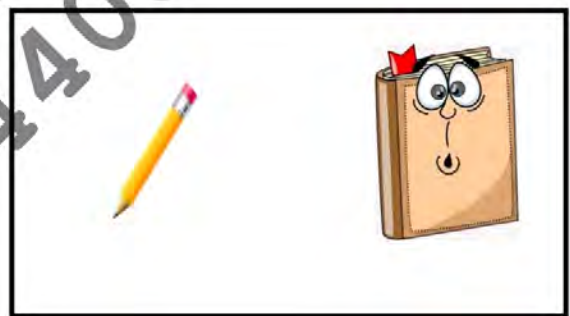
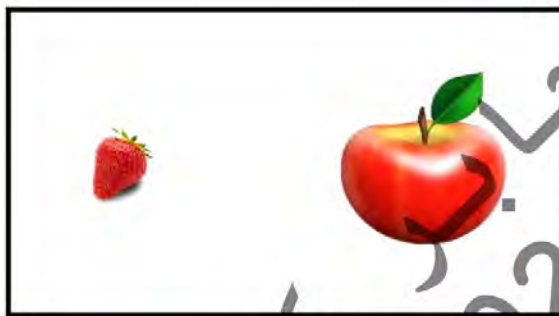


Measuring the weight

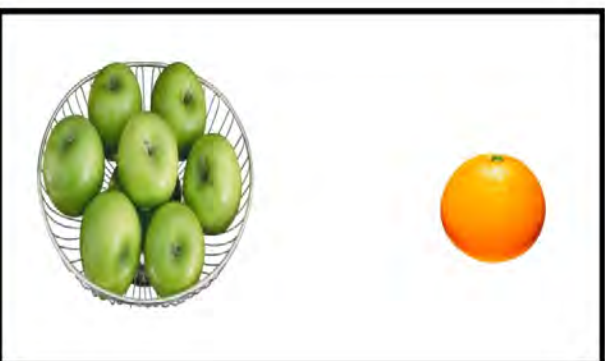
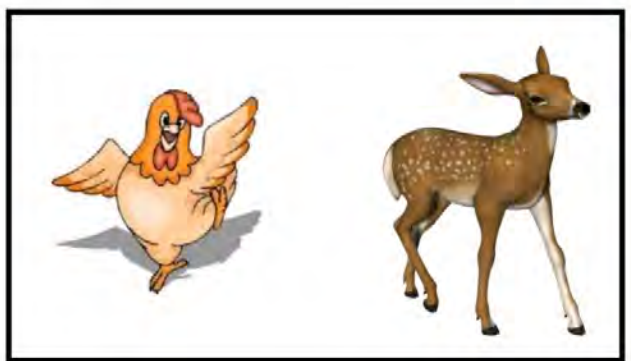
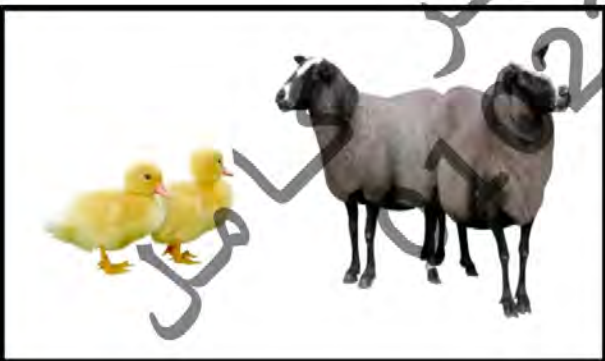
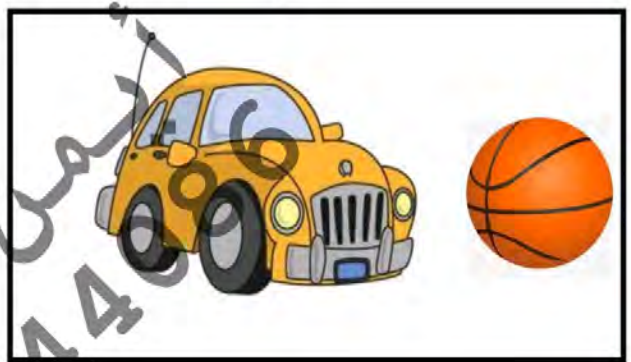
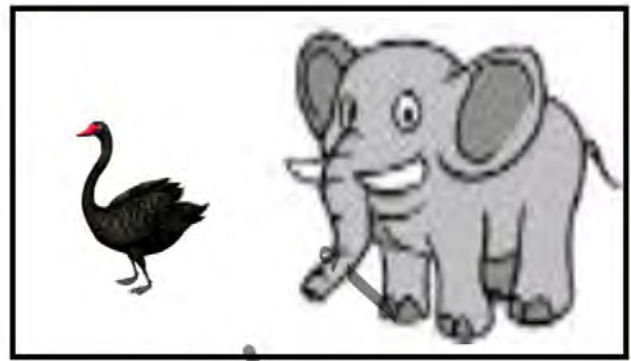
We measure the weight using: gram and kilogram.
 We measure heavy things such as meat or fruits by kilogram.
 We measure light things such as gold and silver by gram.



Put (✓) under the lighter:



Put (✓) under the heavier:



Arrange from lighter to heavier:



()



()



()



()



()



()



()



()

Arrange from heavier to lighter::



()



()



()



()



()



()



()



()

Real life problems:

- ✍ Mohamed bought 62 kilograms rice and 35 kilograms tomato.
How many kilograms all together Mohamed has?

Mohamed has = + = kilograms.

- ✍ Asmaa is 50 kilograms. Asmaa and Arwa are 74 kilograms.
How much does Arwa weigh?

Arwa is = - = kilograms.

- ✍ One pen is 12 gram. How much do two pens weigh?

Two pens = + = grams.

- ✍ Mustafa bought a book (53 grams), a pencil (48 grams)
and a pen (14 grams). How many grams all together?

A book, pencil and pen are = + + = grams.

سلسلة التفوق في الرياضيات ... أ // أيمن جابر كامل



Time



One day = 24 hours.

the day starts from 12:00 after midnight.

What is the time?



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..... :



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write the time in words:



..... :



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..... :

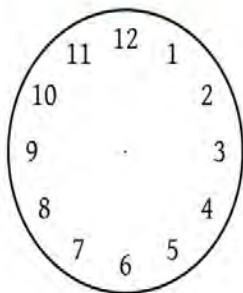


.....

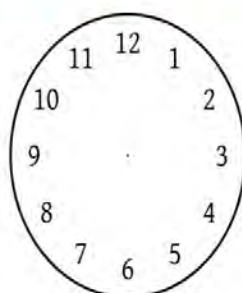
Hour = 60 minutes

Half hour = 30 minutes

Show the time on the clock:



01:20



11:15



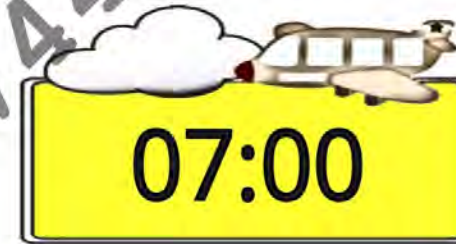
12:45

Real life problems:

Example 1 Ahmed ordered pizza at 5 : 00 and he delivered it after 30 minutes. When did the pizza arrive?



Example 2 Muhammad leaves the house at 7 : 00 every day, and arrives to school within 30 minutes. When does Muhammad arrive to school?



Example 3 Omar went to the zoo at 8 : 30 pm and stayed there for 3 hours. When did Omar leave the zoo?

